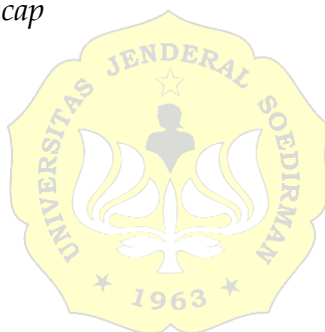


ABSTRAK

Peningkatan populasi ikan Gobiidae di kawasan ekosistem mangrove dapat memicu kompetisi dalam memperoleh makanan, yang berdampak pada karakteristik morfometri dan model pertumbuhannya. Penelitian ini bertujuan untuk mengetahui karakteristik morfometri antara jantan dan betina, model pertumbuhan, faktor kondisi, kondisi kualitas air, dan tekstur sedimen. Metode yang digunakan meliputi pengukuran *Truss* morfometri, model pertumbuhan *Von Bertalanffy Growth Function*, hubungan panjang-berat, faktor kondisi, dan persentase fraksi sedimen. Hasil penelitian menunjukkan terdapat beberapa perbedaan karakteristik morfometri yang signifikan antara ikan Gobiidae jantan dan betina. Model pertumbuhan menunjukkan pola allometrik positif ($b > 3$), dan faktor kondisi ikan jantan dan betina tergolong kurang pipih sebesar 100% dari kedua stasiun ($0 < K < 2$). Kondisi kualitas air sudah sesuai baku mutu biota laut di ekosistem mangrove. Tekstur sedimen di kawasan mangrove Karangtalun, Cilacap didominasi oleh fraksi pasir sebesar 31,88%.

Kata kunci: Ikan Gobiidae; model pertumbuhan; karakteristik *Truss* morfometri; kualitas air; Karangtalun, Cilacap



ABSTRACT

The increase in the Gobiidae fish population in the mangrove ecosystem area triggered competition in obtaining food, which affected their morphometric characteristics and growth models. This study aimed to examine the morphometric characteristics between male and female fish, growth models, condition factors, water quality conditions, and sediment texture. The methods used included Truss morphometric measurements, the Von Bertalanffy Growth Function model, length-weight relationships, condition factors, and sediment fraction percentages. The results showed that there were several significant differences in morphometric characteristics between male and female Gobiidae fish. The growth model demonstrated a positive allometric pattern ($b > 3$), and the condition factors of both male and female fish were classified as less flat, with 100% of the values from both stations falling within the range of $0 < K < 2$. Water quality conditions complied with marine biota quality standards in the mangrove ecosystem. The sediment texture in the Karangtalun mangrove area, Cilacap, was dominated by a sand fraction of 31.88%.

Key words: *Gobiidae fish; growth model; Truss morphometry; water quality; Karangtalun, Cilacap.*

